# TED04 – (Part E8) Waste

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. E.8.1 Outline and compare the various methods for waste disposal. (3) Examples include landfills and incineration.
   1. What is MSW?
   2. What are the most common methods of disposal of MSW?
   3. What are the five categories of landfill materials?
   4. Discuss how landfills are formed, draw your own diagram:
   5. Two types of decomposition are present in landfills, explain what is produced in each:
   6. How can heavy metals and cyanide be removed from the leachate?
   7. What are the benefits of incineration?
   8. Complete the following table with information regarding the two main methods of incineration:

|  |  |
| --- | --- |
| **Rotary-kiln Incinerator** | **Fluidized-bed Incinerator** |
|  |  |

* 1. Discuss the air pollution as a result of incineration:

1. E.8.2 Describe the recycling of metal, glass, plastic and paper products, and outline its benefits. (2)
   1. Why is recycling waste beneficial?
   2. Complete the following table with information regarding each type of material to be recycled:

|  |  |
| --- | --- |
| **Glass Recycling** |  |
| **Metal Recycling** |  |
| **Aluminum Recycling** |  |
| **Steel Recycling** |  |
| **Plastic Recycling** |  |
| **Biodegradable Plastic Recycling** |  |

1. E.8.3 Describe the characteristics and sources of different types of radioactive waste. (2) Include both low-level and high-level radioactive waste. E.8.4 Compare the storage and disposal methods for different types of radioactive waste. (3)
   1. What is Radioactivity?
   2. Complete the following table on the different types of Radiation:

|  |  |  |
| --- | --- | --- |
| **Type of Radiation** | **Explanation** | **Equation** |
| **Alpha** |  |  |
| **Beta** |  |  |
| **Gamma** |  |  |

* 1. What is in nuclear waste?
  2. Explain, using a diagram, the process of nuclear fission:
  3. Describe the characteristics of different types of nuclear waste:

|  |  |  |
| --- | --- | --- |
| **Type of Nuclear Waste** | **Characteristics/Disposal** | **Sources** |
| **High-level Wastes** |  |  |
| **Low-level Wastes** |  |  |

* 1. How are radioactive medical wastes disposed of?